
III. Who Will Do What

Because of its comprehensive nature, the *Galveston Bay Plan's (Plan)* successful implementation will depend on a high level of coordination among the federal, state and local agencies and other organizations responsible for carrying out its Action Plans. The Galveston Bay Program (GBP) is responsible for this coordination, under the guidance of the Galveston Bay Council (GBC). The roles of the major partners in *Plan* implementation are summarized in this Chapter.

The Role of the Federal Government

Many of the actions described in the *Plan* involve federal activities that have been previously planned or are currently in progress. These activities have been included in the *Plan* to reaffirm their importance to Galveston Bay. Federal agencies will also use the *Plan* to prioritize new management initiatives in their budgeting decisions. In general, implementation actions among federal agencies participating in *Plan* implementation will include:

- Providing adequate staff for the federal regulatory, enforcement, monitoring and research activities identified in the *Plan*.
- Providing funding for *Plan* implementation activities.
- Developing or tailoring regulations, standards and policies to meet the management needs identified in the *Plan*.
- Developing Memoranda of Understanding between federal and state agencies to better coordinate environmental protection efforts.

Federal agencies will also play specific roles in a number of the *Plan's* Action Plans. In the area of Habitat Protection, the U.S. Army Corps of Engineers (Corps) will lead efforts to implement a coordinated regulatory strategy through a Memorandum of Understanding between the federal and state agencies now involved in the review of wetlands-related permits. The Corps will promote the beneficial use of dredged materials to restore and create wetlands in the Galveston Bay System. The U.S. Fish and Wildlife Service (USFWS) will play a leading role in the acquisition and restoration of wetlands called for in the *Plan*.

The U.S. Environmental Protection Agency (EPA) will also play a very important role in implementing the *Plan*, including providing funding for implementation efforts. EPA will also be at the forefront of many of the *Plan's* water quality initiatives, such as issuing National Pollutant Discharge Elimination System (NPDES) stormwater permits and overseeing their implementation. EPA will also issue Administrative Orders, as needed to require cities to correct by-pass and overflow problems associated with municipal wastewater collection and treatment systems.

The primary tool for ensuring federal compliance with the *Plan* will be consistency review. Federal grant programs and development projects with the potential to affect Galveston Bay will be reviewed by the GBC under the provisions

of Section 320 of the Clean Water Act to determine whether the programs or projects are consistent with or further the goals and objectives of the *Plan*.

The Role of the State Government

Texas Natural Resource Conservation Commission. The success of the *Plan* will depend directly upon both active state agency participation in the Galveston Bay Council (GBC) and upon fulfillment of commitments concerning the *Plan's* specific initiatives. The TNRCC's role will be somewhat unique by virtue of the predominance of TNRCC initiatives in the *Plan* and because the Galveston Bay Program (GBP) will be established and sponsored by the TNRCC. Key TNRCC implementation steps will include:

- Establishing and funding the Galveston Bay Program Office.
- Submitting the *Plan* to the CCC for designation as a Special Area Management Plan (SAMP) under the Texas Coastal Management Program (TCMP).
- Pursuing assumption of NPDES program from EPA.
- Developing appropriate water quality standards for Galveston Bay management initiatives.
- Developing nonpoint source pollution management programs for smaller cities.
- Adopting a watershed approach to water quality management.

The Coastal Coordination Council. Many of the state environmental programs operating in the Galveston Bay Estuary will be coordinated through the TCMP on a statewide basis. The Texas Coastal Coordination Council (CCC) has adopted rules for the TCMP, which will become effective in June 1995. After the rules are in effect, state agency grants, permits, and development activities must be consistent with the applicable goals, objectives and policies of the TCMP.

The TCMP recognizes that specific coastal areas have unique values of ecological, commercial, recreational, industrial and aesthetic importance. These specific areas require special policies for environmental protection established in the form of SAMPs. The *Galveston Bay Plan* was drafted with a goal of possible incorporation into the TCMP as a SAMP. The CCC may adopt as a rule all or a portion of the enforceable policies of the *Plan* into the TCMP as a SAMP. The CCC can then review state actions for consistency with those adopted enforceable policies. For the purposes of the TCMP, enforceable policies are those elements of the *Plan* which are: (1) agreed upon by consensus as being appropriate benchmarks for consistency review, and (2) are in fact enforceable under existing laws and regulations. Under state law, the CCC will make the consistency determination, although the GBP and GBC will provide input. However, the TCMP consistency review is one of many implementation tools which will be used by the GBP and *Plan* implementation will still occur regardless of its adoption as a SAMP.

In conjunction with approval and implementation of the TCMP, Texas is also seeking acceptance into the federal Coastal Zone Management (CZM) program. The range of programs covered under consistency review could be further

expanded to include federal permits if Texas is accepted into the federal CZM program. Federally-issued permits would be subject to review for consistency with the TCMP. The Galveston Bay Program would have the opportunity to review these permits and provide comments to the CCC. Again, the CCC will make the final decision regarding consistency of federal programs, as it does under state statute for state actions.

In addition to the TNRCC and the CCC, other state agencies will also be actively involved in *Plan* implementation. Their roles will include:

- Participating in the Galveston Bay Council.
- Considering the adoption of the *Plan* as a SAMP.
- Establishing new funding sources for habitat and species protection, and public health and safety programs.
- Providing adequate staff for the regulatory, enforcement, monitoring and research activities identified in the *Plan*.
- Tailoring regulations and policies to fit the management needs identified in the *Plan*.
- Developing Memoranda of Understanding among federal and state agencies to better coordinate environmental protection efforts.
- Assisting in educating bay users and the public on becoming better stewards of the bay ecosystem.

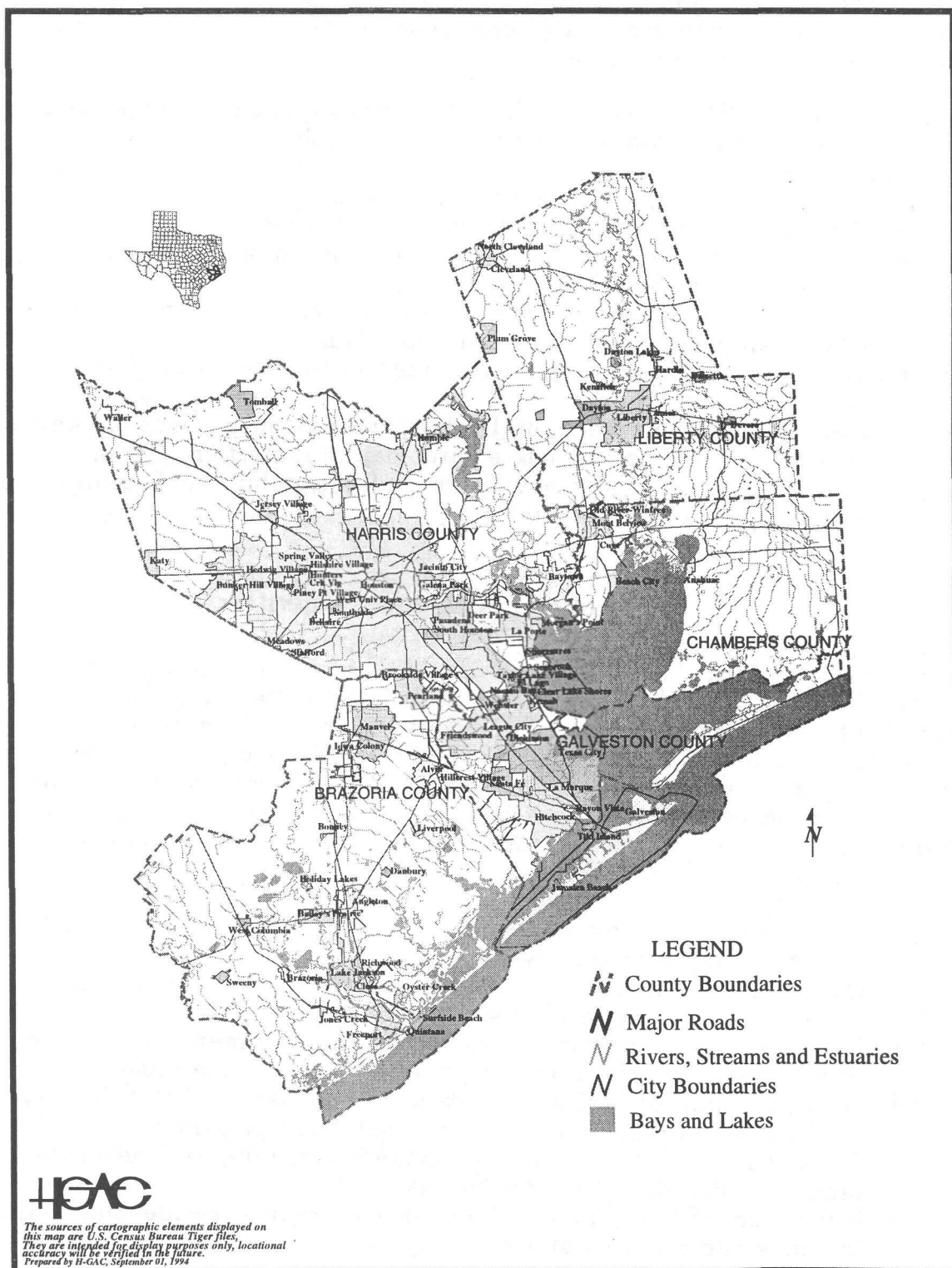
The Role of Local Governments

There are five counties, 97 cities, and hundreds of special districts, authorities, and other units of government in the area covered by the *Plan*. City and county governments in the bay's lower watershed are shown in Figure 4. While local governments are listed as lead agencies on relatively few of the *Plan*'s actions, their participation will be critical to its success. *Plan* implementation will also require a significant expenditure of local government resources and changes in certain areas of their operations. Major local government *Plan* implementation roles will include:

- Compliance with federal and state orders to improve wastewater collection and treatment systems.
- Compliance with federal and state requirements to manage nonpoint source (NPS) pollution from stormwater runoff.
- Voluntary incorporation of NPS management practices into development guidelines and regulations and building codes.
- Incorporation of habitat protection provisions into development guidelines and regulations and tax abatement programs.
- Participation in shoreline management planning and development of land use guidelines and regulations.
- Education of the public on methods to reduce residential pollutant loadings and reduce water consumption.

Many of the *Plan*'s initiatives can only be effectively implemented through local plans, ordinances, and policies affecting construction and development. This is

FIGURE 4. Map of Cities and Counties in Galveston Bay Plan region



particularly true of the Habitat Protection, Shoreline Management, and Nonpoint Sources Action Plans.

In 1994, the Houston-Galveston Area Council (H-GAC) conducted a survey of local government development regulations, with emphasis on their potential use as a tool to manage NPS pollution. Responses to this survey for the five counties surrounding Galveston Bay are shown in Table 1.

As Table 1 illustrates, local governments are currently involved in many activities that could further the *Plan's* goals and objectives. Twenty communities in the Galveston Bay planning area have comprehensive plans. Two cities, Baytown and Seabrook, already include shoreline development components in their comprehensive plans, and Nassau Bay's comprehensive plan includes a drainage and run-off control element. Twenty-nine cities have zoning ordinances. However, only one city with direct bay frontage, Texas City, has an ordinance which includes an open space zone, that may be used to protect shoreline areas. Friendswood, Nassau Bay and Taylor Lake Village, which have frontage on Clear Creek or Clear Lake, also have zoning ordinances which include a zone which restricts development in flood hazard areas.

Almost all of the communities surrounding Galveston Bay have subdivision regulations and building codes, and most of those regulations include controls over the use of septic systems. A number of other cities have begun to require the employment of Best Management Practices (BMPs) for the control of erosion and sediment in public and/or private construction projects, or in the operational design of a project. The GBP will coordinate with local governments and provide technical assistance to continue developing consistent guidelines and ordinances to meet the *Plan's* goals and objectives, but ultimately these actions will require adoption at the local level.

In the area of NPS pollution, lessons learned from the Houston/Harris County stormwater management program under federal NPDES permit requirements, along with the results of pilot studies, will be closely evaluated by EPA, TNRCC, and the GBP. This careful evaluation should ensure that the solutions to Galveston Bay's NPS problems, whether regulatory or advisory, are cost-effective and appropriate for the region's climate and terrain. The GBP will also encourage local governments to voluntarily adopt NPS management practices which may forestall the need for additional regulatory programs in the future. Results of local program evaluations will be incorporated into a manual of NPS Best Management Practices (BMPs) specifically tailored for Galveston Bay.

Existing federal mandates for improvements to local wastewater collection and treatment systems are also included in the *Plan*. These corrective actions will require major expenditures by local governments, but will also yield major improvements in the Bay's water quality. The GBP will work with local governments, EPA and the TNRCC to ensure that these corrective actions are phased in over the long term and are appropriate for Galveston Bay and its surrounding communities. One problem with the use of local ordinances to implement *Plan* actions is that a substantial portion of the five counties

**TABLE 1. 1994 Local Government Water Quality and Land Use Survey:
Respondents and Summary Response**

	1990 Population	Compre- hensive Plan	Zoning	Zoning for Flood	Zoning for Open	Building Codes	Subdivision Regulations	Restrict Septics	Lot Coverage	Landscape Ordinance	BMP for Private	BMP for Local	BMP Long Term
Brazoria County													
Brazoria County	191,707					Yes	Yes	Yes					
Alvin	19,220	Yes				Yes	Yes	Yes					
Brookside Village	1,470					Yes	Yes						
Brazoria	2,717					Yes	Yes	Yes					
Clute	8,910		Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes
Freeport	11,389	Yes	Yes	Yes		Yes	Yes	Yes					
Holiday Lakes	1,039		Yes										
Iowa Colony	675					Yes	Yes	Yes				Yes	Yes
Lake Jackson	22,776	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes			Yes
Manvel	3,733					Yes	Yes	Yes			Yes		
Pearland	18,697	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Quintana	51	Yes	Yes		Yes	Yes		Yes	Yes				
Richwood	2,732		Yes			Yes	Yes	Yes					
Surfside Beach	611												
Sweeny	3,297					Yes	Yes	Yes	Yes				
West Columbia	4,372					Yes	Yes	Yes					
Chambers County													
Chambers County	20,088					Yes	Yes	Yes					
Anahuac	1,993					Yes		Yes					
Mont Belvieu	1,323					Yes	Yes		Yes				
Galveston County													
Galveston County	217,399					Yes	Yes						Yes
Bayou Vista	1,320					Yes	Yes	Yes	Yes				
Clear Lake Shores	1,096		Yes			Yes							

	1990 Population	Compre- hensive Plan	Zoning	Zoning for Flood	Zoning for Open	Building Codes	Subdivision Regulations	Restrict Septics	Lot Coverage	Landscape Ordinance	BMP for Private	BMP for Local	BMP Long Term
Galveston CO. (cont.)													
Dickinson	9,497					Yes		Yes				Yes	
Friendswood	22,814		Yes	Yes		Yes	Yes	Yes	Yes	Yes			
Hitchcock	5,868					Yes	Yes	Yes					
Jamaica Beach	624		Yes			Yes	Yes	Yes				Yes	Yes
La Marque	14,120	Yes	Yes	Yes		Yes	Yes	Yes			Yes	Yes	Yes
League City	30,159	Yes				Yes	Yes	Yes		Yes			
Texas City	40,822	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes			
Harris County													
Harris County	2,818,199						Yes				Yes	Yes	Yes
Baytown	63,850	Yes				Yes	Yes	Yes	Yes				
Bellaire	13,842	Yes	Yes			Yes	Yes	Yes	Yes			Yes	
Bunker Hill Village	3,391		Yes	Yes		Yes	Yes	Yes	Yes				
Deer Park	27,652	Yes	Yes			Yes	Yes	Yes	Yes		Yes	Yes	Yes
El Lago	3,269		Yes			Yes		Yes				Yes	
Galena Park	10,033		Yes			Yes		Yes					
Hedwig Village	2,616				Yes						Yes	Yes	Yes
Houston	1,630,553					Yes	Yes	Yes		Yes	Yes	Yes	Yes
Hunter Creek Village	3,954		Yes	Yes		Yes	Yes	Yes	Yes				
Jacinto City	9,343		Yes			Yes		Yes					
Jersey Village	4,826	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	
Katy	8,005		Yes			Yes	Yes	Yes	Yes				
Morgan's Point	391	Yes	Yes			Yes	Yes		Yes	Yes			
Nassau Bay	4,320	Yes	Yes	Yes		Yes	Yes	Yes	Yes				
Pasadena	119,363	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Seabrook	6,685	Yes	Yes			Yes	Yes	Yes		Yes		Yes	
Shoreacres	1,316		Yes			Yes	Yes	Yes					
Southside Place	1,392		Yes			Yes		Yes	Yes				

	1990 Population	Compre- hensive Plan	Zoning	Zoning for Flood	Zoning for Open	Building Codes	Subdivision Regulations	Restrict Septics	Lot Coverage	Landscape Ordinance	BMP for Private	BMP for Local	BMP Long Term
Harris CO. (cont.)													
Spring Valley	3,392		Yes			Yes	Yes	Yes	Yes				
Taylor Lake Village	3,394	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes
Tomball	6,370	Yes				Yes	Yes						
West University Place	12,920	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Liberty County													
Liberty County	52,726												
Ames	989												
Cleveland	7,124					Yes	Yes	Yes	Yes				
Daisetta	969												
Dayton	5,151					Yes	Yes	Yes					
Liberty	7,733	Yes				Yes	Yes	Yes	Yes			Yes	Yes

Source: H-GAC, 1994.

Zoning for Flood = Zoning for flood plains, flood hazard areas, waterways, and/or groundwater recharge zones.

Zoning for Open = Zoning for open space, agricultural, and/or undeveloped zones.

Lot Coverage = Zoning ordinance, building codes, or subdivision regulations include provisions which restrict the amount of lot coverage.

Landscape Ordinance = A local ordinance includes regulations which has minimum requirements for landscaping.

BMP for Private = Private builders or contractors are required to use BMPs for stormwater management.

BMP for Local = Local government projects (such as roads and community facilities) are required to use BMPs for stormwater management.

BMP Long Term = Long term design of the project includes stormwater management once the facility is operational.

surrounding the bay is unincorporated, and counties in Texas generally do not have ordinance-making authority. For some of the *Plan's* recommendations to be fully implemented at the local level, a legislative change will be required, giving counties some level of ordinance-making authority.

The Role of Stakeholders

There are many "stakeholders" in the *Plan* as depicted in Figure 5. This term applies to civic, conservation and environmental organizations, industry, small businesses, commercial and sport fishermen, developers, boaters, and the public. All of these stakeholders will be affected by the *Plan* and will share responsibility for implementation. The partnership approach to natural resource protection is emphasized throughout the *Plan*, and will be even more important in its implementation. Difficult policy and resource allocation decisions will need to be made to move implementation forward. These will require broad support from all stakeholder groups to be successful. Involvement of stakeholders includes:

- Serving on the GBC and provide a voice for ongoing bay management.
- Participating in public forums advocating the goals and objectives of the *Plan*.
- Providing input and comments on environmental policies affecting the bay.
- Assisting with public outreach and educational efforts.
- Contributing funding, volunteer, and in-kind services to support implementation.
- Supporting legislative efforts at the federal, state, and local level.

The Role of the Public

Public involvement is indispensable to the implementation of the *Plan* and public support is critical to long-term success. Representatives from environmental and recreational groups, locally-elected officials and industry can help educate the public and advocate the goals of the *Plan*. Representatives from local stakeholder groups will be chosen to serve on the Galveston Bay Council. Representation must come from *all* facets of the population surrounding Galveston Bay, including low income and minority communities. This will allow the entire community to participate in the decision-making process and ensure that the goals, objectives, and actions of the *Plan* are achieved. Elements of public involvement in implementation include:

- Encouraging federal, state, and local agencies, as well as bay user groups, to implement the *Plan*.
- Contributing funds, land, and in-kind services and encourage receipt of funds from "soft" sources such as grants to implement *Plan*.
- Advocating the regional importance of Galveston Bay, and working for passage of necessary state laws and local ordinances to implement the *Plan*.

- Working for appropriation of required funds at the federal, state and local level.
- Supporting State-of-the-Bay Symposia as a forum for reporting ongoing research, and for educating and involving the public in the state of the bay.
- Creating an education and outreach program which also involves the media.
- Participating in a school educational program targeting children residing in the Galveston Bay watershed.
- Providing volunteer opportunities for education and other "Protect-the-Bay" events.
- Encouraging pollution reporting through the Citizens Pollution Awareness and Reporting System hotline for reporting pollution events.
- Implementing citizen actions such as improved management of household hazardous wastes, reducing the amount of pesticides and fertilizers used, recycling used motor oil, etc.

FIGURE 5. *Partners for Implementing The Galveston Bay Plan*

